



HEPATITIS C

1. **Agent:** Hepatitis C virus (HCV).

- Has positive HCV antibody test **AND**
- Does not have a positive hepatitis C virus detection test

2. **Identification:**

a. **Symptoms:** Onset is usually insidious with anorexia, abdominal discomfort, nausea and vomiting and (20-30%) with progression to jaundice. More than 90% of cases are typically asymptomatic or have mild disease. 70-80% develop chronic liver disease and of those with chronic infection: 5-20% develop cirrhosis after 20-30 years, and 1-5% die from liver cancer or cirrhosis. Fulminant hepatic failure following infection is rare.

b. **Differential Diagnosis:** Other causes of viral and non-viral hepatitis.

c. **Diagnosis of acute HCV infection:**

Clinical criteria:

- Jaundice **OR** serum alanine aminotransferase (ALT) >200 IU/L **OR** total bilirubin \geq 3.0 mg/dL;
AND
- Absence of a more likely diagnosis

Laboratory criteria:

- Positive Hepatitis C virus detection test: nucleic acid test (NAT) for HCV RNA (including qualitative, quantitative or genotype) or HCV antigen test¹

d. **Case Classification:**

All hepatitis C virus cases in each classification category should be > 36 months of age. ACDC will investigate perinatal cases (\leq 36 months of age).

1) Acute

a) *Confirmed:*

- Meets clinical criteria and has positive HCV detection test **OR**
- Evidence of seroconversion from a negative to a positive antibody or HCV detection test

b) *Probable:*

- Meets clinical criteria **AND**

2) Chronic/Carrier

If case does not meet confirmed or probable acute case definitions but has a positive HCV test, classify as:

a) *Confirmed:*

- Positive HCV NAT (PCR) or positive HCV antigen test¹.

b) *Probable:*

- Positive anti-HCV but no positive Hepatitis C virus detection test.

3) All others: close as False

3. **Incubation:** Variable, 2 weeks to 6 months; average 40 days.

4. **Reservoir:** Human.

5. **Source:** Blood or blood products.

6. **Transmission:** By parenteral inoculation or mucous membrane, exposure to human blood or blood products.

7. **Communicability:** From one or more weeks prior to onset; may persist indefinitely. Carrier state is common. Viremia appears to be relatively low.

8. **Specific Treatment:** It is usually not necessary to treat acute HCV. Multiple antiviral drugs are available to treat chronic HCV.

9. **Immunity:** Unknown.

REPORTING PROCEDURES

1. Reportable, *California Code of Regulations*, Section 2500, 2505.



2. **Report Form: VIRAL HEPATITIS B or C CASE REPORT¹**. In addition, for the rare case associated with administration of blood or blood products during the 6-month period prior to onset use Supplemental Data Sheet, **TRANSFUSION-ASSOCIATED HEPATITIS CASE RECORD (CDPH 8376) 07/07²**.

Chronic carriers of anti-HCV are not investigated with these forms; submit CMR only.

3. **Epidemiologic Data:**

- a. Record results of laboratory tests: HAV IgM, HBsAg, IgM anti-HBc, anti-HCV, HCV PCR, and ALT levels.
- b. Reason for medical visit leading to diagnosis. This may be helpful in determining if case is acute or chronic hepatitis C.
- c. Contact with confirmed or suspected acute or chronic hepatitis C infection.
- d. Patient was treated for a sexually transmitted disease.
- e. Patient or employee of a renal dialysis unit.
- f. Resident of a long-term facility (e.g. nursing home).
- g. Receive fingersticks.
- h. Contact with or injection of contaminated blood; accidental inoculation by needle (laboratory), accidental splash into the eye.
- i. Transfusions of blood or blood products: places, dates, lot numbers, manufacturer.
- j. Patient has received any IV infusions and/or injections in the outpatient setting.
- k. Medical or dental treatment within past 6 months, including types of injections, surgical procedures performed or any diagnostic medical procedure including colonoscopy/endoscopy.

- l. Occupational history, especially medical-dental personnel, workers or public safety worker (law enforcement/correctional officer) and those involved in handling blood or blood products.
- m. Blood donation, date, and location of last donation.
- n. Patient has undergone acupuncture.
- o. Percutaneous exposure: self-injections (admitted or suspected), tattooing, ear piercing, acupuncture, electrolysis, skin-piercing procedures, etc.
- p. Use of injection or non-injection street drugs.
- q. For child case, status of mother and other sibling(s) should be evaluated. If pertinent, testing of mother's long-term sexual partner may be considered at the discretion of the mother's physician and child's mother.
- r. Number of sexual partners of either gender.

CONTROL OF CASE, CONTACTS & CARRIERS

Investigate within 3 days. The **VIRAL HEPATITIS B or C CASE REPORT¹** is for acute cases only. For chronic carriers submit a CMR only.

CASE:

- 1. No restrictions.
- 2. Advise cases to seek evaluation for HCV treatment

CONTACTS:

- 1. For persons exposed to blood or sexual secretions of infected person, use of immune globulin has no protective benefit and is not appropriate.
- 2. No restrictions.

¹ www.publichealth.lacounty.gov/acd/Diseases/EpiForms/HepatitisBCRep.pdf

² www.publichealth.lacounty.gov/acd/Diseases/EpiForms/TransfusionHepatitisCase-CDPH8376.pdf



PREVENTION-EDUCATION

1. Refer to appropriate personal health care provider for long term follow-up.
2. Advise the patient that disease may be transmitted by shared articles that become contaminated with blood (needles, syringes, razors, tooth brushes, etc.) as well as possible sexual and perinatal transmission.
3. Individuals should be counseled about the risk of sexual transmission of HCV if they have multiple sexual partners and should be advised to use barrier precautions such as latex condoms. Since long-term sexual partners are at low risk for acquiring HCV infection, use of barrier precautions should be discussed between the patient and his/her physician.
4. Emphasize sanitary disposal of blood and other body secretions.
5. Advise patient that people with a history of viral hepatitis are excluded from blood donor programs.
6. Advise patient to abstain from alcohol and not to start any new medications, including over-the-counter and herbal medicines, without first checking with their doctor.
7. For all cases advise vaccination against hepatitis A and hepatitis B.
8. HCV-positive mothers may breast feed but should abstain if nipples become cracked or bleed.

DIAGNOSTIC PROCEDURES

Clinical and epidemiologic history required to aid laboratory in test selection.

Serology:

Diagnosis is made by a positive anti-HCV screening test and verified by a supplemental test-HCV-PCR (HCV NAT).

Container: Serum separator tube (SST, a red-gray top vacutainer tube)

Laboratory Form: **TEST REQUISITION FORM (H-3021)**³

Examination Requested: Hepatitis C (indicate if previously positive).

Material: Whole clotted blood.

Amount 8-10 ml.

Storage: Refrigerate.

These serological tests are performed by the Public Health Laboratory, as well as by many clinical laboratories and require 10 ml of clotted blood or 5 ml of serum. The Public Health Laboratory performs IgM anti-HAV (MYSYS test code: HAVM), HBsAg (MYSYS test code: HBSAG) Hepatitis C EIA test (MYSYS test code HCVAB), and HCV PCR, but IgM anti-HBc test (unless asked for specifically) is not offered at the Public Health Laboratory.

³ www.publichealth.lacounty.gov/lab/docs/H-3021%20Test%20Request%20Form.pdf



Hepatitis C Case Classification Algorithm

